

Appl. No. 10/782,306
Atty. Docket No.: 2002B107E
Amdt. dated January 29, 2007
Response to OA of December 30, 2006

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REMARKS/ARGUMENTS

This reply is submitted in response to the Final Office Action dated December 30, 2006.

Claims 1-5, 7-17, 77-153, 156, 161, and 164-170 are canceled.

Claims 66-70, 73, 75-76, and 154-155 are withdrawn

Claims 6, 18-65, 71-72, 74, 108-109, 157-160, and 162-163 are rejected.

Claim 154 and 155 are amended.

Rejoinder under MPEP §821.04

Applicant requests that the pending withdrawn claims be rejoined should the application be otherwise in condition for allowance. All of the pending withdrawn claims depend from (and therefore must include all of the limitations) a claim that would be in condition for allowance and are therefore eligible for rejoinder under MPEP 821.04.

Rejections under 35 USC § 103(a)

Claims 6, 18-65, 71-72, 74, 108-109, 157-160, and 162-163 stand rejected under 35 USC § 103(a) as obvious over Aboshi et al. (U.S. 4,041,002) taken with Kim et al (U.S. 4,912,148), Itoh et al. (U.S. 2002/0183429) and Girotti et al. (U.S. 3,957,898).

Applicant's claimed invention relates to fibers and non-wovens comprising blends of one or more polyolefins with one or more non-functionalized plasticizer's (NFP's), where the NFP's can have, for example, a Kinematic viscosity of 10 cSt or more at 100°C, a specific gravity of from 0.700 to 0.860, and a Viscosity Index (VI) of 120 or more.

The Office has suggested that Aboshi teaches an extrusion and does not give any weight to the actual form of the extrusion. An extrusion is defined by the Handbook of Plastics, Elastomers, and Composites (a copy of the relevant section is submitted herewith) as:

The process of extrusion consists basically of forcing heated, melted plastic continuously through a die, which has an opening shaped to produce a desired finished cross section...The main application of extrusion is the production of continuous lengths of film, sheeting, pipe, filaments, wire jacketing, and other useful forms of cross sections...The main object hers is the production of shapes, parts, and tolerances not obtainable in compression or transfer molding.

Appl. No. 10/782,306
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An extrusion as shown above could be any number of forms. In fact, Aboshi does not use the word fiber or non-woven anywhere in the entire specification. Given the context and examples of Aboshi, it is clear that a fiber was not the intended form. The properties necessary to produce effective fibers are different than those needed for pipes or films. An extrusion is not an equivalent of a fiber. Aboshi does not disclose or suggest that any of the products disclosed therein could be made into fibers.

The Office refuses to give weight to the actual form because the claims are drawn to the composition of the fiber. However, the Office is unable to find a single piece of art that discloses a fiber having the claimed composition. Being the first to recognize that these compositions can be made into fibers is enough to support patentability. It is clear that the disclosure in Aboshi does not teach or suggest the claimed invention.

In addition, the Office has failed to disclose a single example of a composition having the claimed properties. Each of the specific references will be addressed below.

Aboshi

Aboshi does not teach or suggest the use of paraffins having a Kinematic viscosity of 10 cSt or more at 100°C, a specific gravity of from 0.700 to 0.860, and a viscosity index of 120 or more. In fact, Aboshi does not disclose any specific oils. The only information that is provided in the examples is that a paraffin type oil having a Saybolt Universal Second of 460 at 100°F is used. This does not provide enough information to calculate either the specific gravity or the viscosity index, nor does it suggest that the claimed properties would be present. Likewise, nothing in Aboshi suggests that these properties are important. In addition, a typical paraffin process oil will not have the claimed properties. The only stated goal in Aboshi is to improve lubricity and wear resistance without sacrificing the inherent moldability of thermoplastic resins. Therefore, there would be no motivation to use paraffins having the claimed properties even if Aboshi is combined with another reference. Applicant respectfully notes that nothing within the Aboshi's disclosed thermoplastic elastomer discloses or suggests Applicant's specific NFP's to produce fibers and non-wovens.

Appl. No. 10/782,306
Atty. Docket No.: 2002B107E
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Kim

The Office asserts that Kim shows a blend of either a polyethylene or polybutene with a process paraffin oil having overlapping physical properties with the claimed invention. However, **typical paraffin process oils will not have a VI in excess of 120 or more.** The Office suggests that Kim shows overlapping properties but the only property that overlaps at all is the viscosity. The specification in Kim specifically prefers that "the oil has a specific gravity of 0.87 to 1.02" which falls entirely outside the scope of the rejected claims. Specific oils are not disclosed except for the two oils that are used in the examples; naphthenic process oil (Han IL Oil Refinery Co., Ltd., N Grade) and paraffinic process oil (Han IL Oil Refinery Co., Ltd., P Grade). **These oils will not have a VI in excess of 120 or more** and given that Kim specifically prefers oils having a specific gravity of 0.87 to 1.02, it is clear that these oils would fall outside the claimed scope. Again, Applicant respectfully notes that nothing within Kim's thermoplastic elastomer discloses or suggests Applicant's specific NFP's to produce fibers and non-wovens.

Itoh

As discussed in the previously submitted response, Diana Process Oil PW-380 does not have a VI in excess of 120 or more. **The calculated VI for Diana Process Oil PW-380 is 110.3.** In addition, PS-430 is still a typical paraffinic process oil and **does not have a specific gravity from 0.700 to 0.86 nor a VI in excess of 120.** The Office asserts that Itoh discloses an olefinic resin with a softening agent that may include a paraffin oil. While the Office suggests that Itoh discloses properties which overlap with the claimed invention, Itoh does not show any paraffin oils having a Kinematic viscosity of 10 cSt or more at 100°C, a specific gravity of from 0.700 to 0.860, and a viscosity index of 120 or more. Itoh discloses two specific oils that are used in the examples; Diana Process Oil PW-380 and PS-430. Furthermore, nothing within Itoh discloses or suggests any other fluid; much less Applicant's particular NFP's having certain KV₁₀₀'s, VI's, specific gravities, and or cyclic contents, etc. to produce fibers and non-wovens. Thus, Applicant respectfully requests that the rejection under 35 USC § 103(a) be withdrawn.

Girotti

Girotti discloses the process of producing synthetic lubricating oils. Applicant has never suggested that they were the first to invent synthetic lubricating oils; examples of existing oils

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are found throughout Applicant's specification. However, it is the claimed combinations of specific types of NFP's and polyolefins which produce the claimed invention. **Girotti does not teach or suggest combining these synthetic lubricating oils with polyolefins** or specifically to produce fibers or non-wovens. Girotti discloses synthetic lubricants, not process oils. These types of lubricants are typically used in automobile engines. The Office has shown no evidence that these synthetic lubricants have ever been used in the polymer industry or any evidence of synthetic lubricants being added to polyolefins. The Office has not disclosed the specific motivation or suggestion to combine this reference with Aboshi, Kim, or Itoh. Applicant has never suggested that they were the first to invent synthetic lubricating oils; examples of existing synthetic lubricants are found throughout Applicant's specification. However, it is the claimed combination with polyolefins that produce the claimed invention. Neither Girotti, Kim, Aboshi, nor Itoh teach or suggest Applicant's specific NFP's for use in fibers and non-wovens. Because the claimed combination is neither taught nor suggested by the cited prior art, Applicant respectfully submits that the claims are in condition for allowance and respectfully requests notice of such.

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CONCLUSION

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Reconsideration and allowance is respectfully requested. Applicant invites the Examiner to telephone the undersigned attorney if there are any issues outstanding which have not been presented to the Examiner's satisfaction.

The Commissioner is hereby authorized to charge any deficiency or credit any overpayment to Deposit Account number 05-1712. Moreover, if the deposit account contains insufficient funds, the Commissioner is hereby invited to contact Applicants' undersigned representative to arrange payment.

Respectfully submitted,

Date: 1/29/07



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